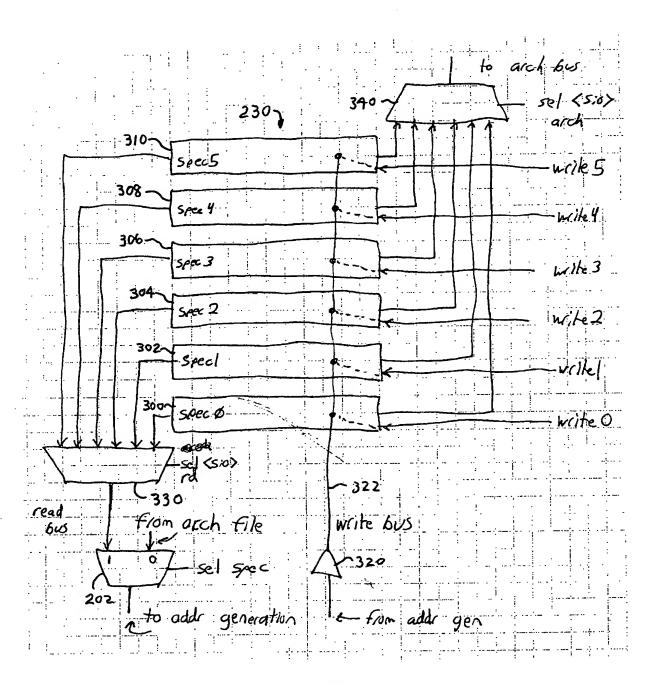
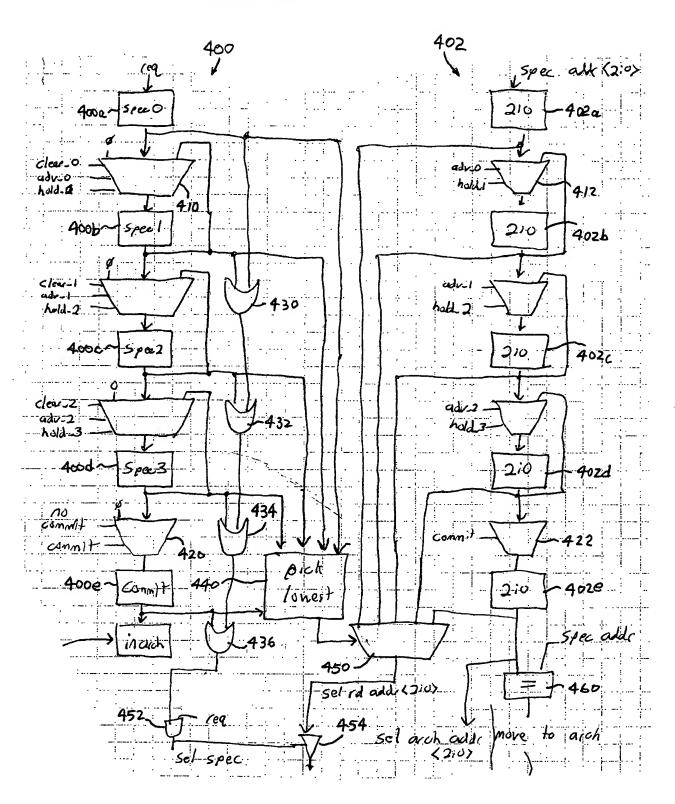


F16.2

Digital Signal Processor Having Data Address Generator with Speculative Register File Galeotos et al. Docket No.: A0312.70525US00 1997 ABDR DAC SAECULATIVE ARGH PARAMETER REGISTERS 230 0 ADDR SPEC



F16.4



F14.5

Docket No.: A0312.70525US00

Example 0

F19.6

INSTR A	\mathcal{I}	0		SPEC RF
STAGE	IN SPEC REG	ADDR REG	0	
				A
SPEC O	• /	0x0	. /	_
SPEC 1	0	OxX	. 2	
SPEC 2	6	02X		
			3	
SPEC 3	0	OxX	4	
COMMIT	0	OxX	5	
	(400	CAOZ		
	F16.		•	230

INSTR B	Io			SPEC RF
STAGE	IN SPEC REG	ADDR REG	0	
				A
SPEC 0	1	021	,	p
		~ ^	·	В
SPEC 1		020	. 2	_
	0	0×X	·	
SPEC 2		·	3	_
SPEC 3	0	OxX		
			4	-
COMMIT	0	OzX		
	£ 400	(402	5	<u> </u>
	F16.7	В		230

SPEC RF

В

1

2

3

INSTR C	IO			SPEC RF
STAGE	IN SPEC REG	ADDR REG	0	
				Α
SPEL O	/	022	,	В
SPEC 1	,	021		0
JPEC 1			- 2	C
SPEC 2	1	Oxo		
		·	3	-
SPEC 3	. 0	OxX	4	-
COMMIT	0	OxX	7	
		<u> </u>	5	-
• •	₹400	C 402		P
	E16 7	_		(230

INSTR D	I	
STAGE	IN SPEC REG	ADDR REG
SPEC O	1	0x3
SPEC 1	1	0×2
SPEc 2	1	0x1
SPEc 3	1	0×0
COMMIT	0	OxX
	£ 400	2402
	F19.7	$^{\prime}D$

INSTR E	10	1		SPEC RF
STAGE	IN SPEC REG	ADDR REG .	Ó	
				А
SPEC 0	/	0×4	,	В
SPEC 1	1	0x3		
JPEC 1		UNI	2	C
SPEC 2	1	0 x 2		
		·	3	D
SPEC 3	1	0 7 1	4	_
			7	E
COMMIT		0 2 0	5	_
• •	2400	2402		
	FIG. 7	E	. (7 -230

INSTR F	. IO.	
STAGE	IN SPEC REG	ADDR REG
SPEC 0	1	025
SPEC 1	1	0 x4
SPEC 2	1	023
SPEC 3	1	0 X Z
COMMIT	1	0 % 1

SPEC R	F
-	
В	
С	
D	
E	
F	
	- В С

F14.7F

INSTR G	J. IC) ·
STAGE	IN SPEC REG	ADDR REG
SPEC 0	1	0×0
SPEC 1	1	025
SPEC 2	1	0×4
SPEC 3	1	023
COMMIT	1	0 x 2

	SPEC R	F
0	G	
′	-	
2	C	
. 3	D	
4	E	
5	F	
	(230	

Example 1

$$A \qquad ro = [\rho_{0++}]$$

$$B \qquad r_1 = [p_1 + +]$$

$$c \qquad r2 = \left(P/++\right)$$

$$D \qquad r_3 = [P_{1++}]$$

FIG. 8

•	Po		SPEC RF
STAGE	IN SPEC REG	ADDR REG	οΔ
SPEC O		0×0	
	0	OXX	/ -
SPEC 1			2 -
SPEC 2	. 0	0××	3 ~
SPEC 3	0	Oxx	
			4 -
COMMIT	0	021	5 _
	C.440 P1	C442	
STAGE	IN SPEC REG	ADDR REG	(230
	T	ADDR REG	INSTR A
	T	ADDR REG	
STAGE	IN SPEC REG		
SPEC O	IN SPEC REG	OXX	
SPEC O	IN SPEC REG	0xX 0xX	
SPEC O	IN SPEC REG	0 χ X 0 χ X	INSTR A
SPEC 0 SPEC 1 SPEC 2 SPEC 3	IN SPEC REG	0 χ X 0 χ X 0 χ X	INSTR A

		Po			SPEC RF
	STAGE	IN SPEC REG	ADDR REG	0	^
-	SPEC O	0	0xX		A
				/	B
	SPEC 1		020	2	
	SPEC 2	. O	O x X		
				3	-
	SPEC 3	O.	OxX	4	_
	COMMIT	0	OxX	_	
		C440	C442	5	
		_	7 7 -		-
		PI	<u>. </u>		£230
	STAGE	IN SPEC REG	ADDR REG		E 230
	STAGE SPEC O	IN SPEC REG	<u>. </u>		t ₂₃₀
		IN SPEC REG	ADDR REG		
	SPEC O	IN SPEC REG	ADDR REG		
	SPEC O	IN SPEC REG	Orl OrX		
	SPEC 0	IN SPEC REG	Oxl OxX OxX OxX	INS	
	SPEC 0 SPEC 2 SPEC 3	IN SPEC REG	OxI OxX OxX OxX OxX C452	INS	

	Po		SPEC RF
STAGE	IN SPEC REG	ADDR REG	
SPEC O	0	Οχχ	A
SPEC 1	0	Oxx	/ B
SPEC 2	. 1	020	2 C
SPEC 3	0 .	Oxx	3 -
COMMIT	0	OxX	4 -
	C440	C442	5 <u>-</u>
STAGE	IN SPEC REG	ADDR REG	-230
SPEC O	1.	022	INSTR C
		0x2	
SPEC 1		0×1	. •
	0		
SPEC I		0×1	
SPEC 2	0 0	0x1 0xx 0xx 0xx	
SPEC 2 SPEC 3	0 0	0x1 0xx 0xx	

	po			PEC RF
STAGE	IN SPEC REG	ADDR REG	0	A
SPEC O	0	0 % X	-	-
	0	4 1/	1 ' -	В
SPEC 1		OzX	2	c
SPEC 2	.0	Oxx	3	
1071 7	1	020		D
SPEC 3		020	4	
COMMIT	0	OxX		
	2 940 PI	2442	5	
STAGE	IN SPEC REG	ADDR REG	(230
SPEC O	1	0x3	INST	R D
SPEC 1	1	0x2		
SPEC 2	1	0×1		
	1	1		
SPEC 3	0	OxX	1 ·	
SPEC 3	0	02%	<u>.</u> -	
	0		<u>.</u> .	

	Po			SPEC RF
STAGE	IN SPEC REG	ADDR REG		h
SPEC O	O	OxX		A
SPEC 1	O	Oxx	/	В
SPEC 2	-0	Ox X	2	С
SPEC 3	0	OxX	3	D
COMMIT	1	020	4	E
	2440 PI	£442	5	<u></u>
STAGE	IN SPEC REG	ADDR REG		230
SPEC O	- 1	0x4	INS	TR E
		i .		
SPEC 1	T.	0×3		
SPEC 2	1	0×3		
	1			
SPEC 2	1 1 0	022		
SPEC 2 SPEC 3	<u> </u>	0x2 0x1 0xX		

	Po			SPEC RF	
STAGE	IN SPEC REG	ADDR REG		,	
SPEC O	0	Oxx			
	0	02X	,	В	
SPEC 1		2,	2	c	
SPEC 2	0	OXX	. 3		
SPEC 3	0	Oxx		D	
JPE- J			4	E	
COMMIT	C 440	OxX	5		
	•				
STAGE	IN SPEC REG	ADDR REG		C230	
SPEC O		025	I	INSTR F	
SPEC I	ï	0×4			
SPEC 2	1	023	•		
5PEC 3	1	022	;·		
COMMIT		021		·	
	6450	2452	•		
	F16.	9 F			